Maine Grade 7

# FlyBy Math<sup>TM</sup> Alignment Maine Mathematics Grade Level Expectations Spring 2004

## Cluster 1 - Numbers and Operations

## A. Numbers and Number Sense

## **Grade Level Expectations**

M1A3.7 Apply concepts of ratios in practical or other mathematical situations.

## FlyBy Math<sup>TM</sup> Activities

- --Apply mathematics to solving distance, rate, and time problems for aircraft conflict scenarios.
- --Use graphs to compare airspace scenarios for both the same and different starting conditions and the same and different constant (fixed) rates.

## **B.** Computation

#### **Grade Level Expectations**

M1B2.7 Create, solve, and justify the solution for multistep, real-life problems with whole numbers, fractions (including mixed numerals), decimals, and percents.

# FlyBy Math<sup>TM</sup> Activities

--Apply mathematics to solving distance, rate, and time problems for aircraft conflict scenarios.

## Cluster 2 – Shape and Size

#### E. Geometry

#### **Grade Level Expectations**

M2E3.7 Use a coordinate system to define and locate position.

# FlyBy Math<sup>TM</sup> Activities

--Plot points on a schematic of a jet route, on a vertical line graph, and on a Cartesian coordinate system to describe the motion of two airplanes.

#### Cluster 4 - Patterns

### G. Patterns, Relations, and Functions

#### **Grade Level Expectations**

M4G3.7. Solve problems involving linear patterns in the form of tables, graphs, words, rules or equations using rational numbers (including signed values).

# FlyBy Math<sup>TM</sup> Activities

- --Use tables, graphs, and equations to solve aircraft conflict problems.
- --Represent distance, speed, and time relationships for constant speed cases using tables, bar graphs, line graphs, equations, and a Cartesian coordinate system.